



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/627,530 | 07/24/2003 | Stuart K. Janikowski | LIT-PI-344.3D1 | 2921 |
| 7590 | 07/19/2005 | | EXAMINER | |
| Stephen R. Christian BBWI P.O. Box 1625 Idaho Falls, ID 83415-3899 | | | | LAMB, BRENDA A |
| | | ART UNIT | | PAPER NUMBER |
| | | 1734 | | |

DATE MAILED: 07/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|----------------------------|-------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/627,530 | JANIKOWSKI ET AL. |
| | Examiner Brenda A. Lamb | Art Unit 1734 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 21 April 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,2,4-6,8-15,17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,2,4-6,8-15 and 17-18 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ . | 6) <input type="checkbox"/> Other: _____ . |

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 19, 2005 has been entered.

Claims 1-2, 4-6, 8-15 and 17-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The originally filed specification fails to teach or suggest the entry seal and exit seal each comprise at least one baffle having a non-equidimensional aperture of non-linear and non-rectangular there through. The originally filed specification fails to teach or suggest the substrate is elongate or the multiple substrates arranged in an adjacent matter so as to present a non-linear, non-rectangular cross-section.

If applicant disagrees then it is suggested that applicant point out support in the specification and/or in the drawings for the at least one baffle having a non-equidimensional aperture of non-linear and non-rectangular shape there through or the substrates are elongate multiple substrates arranged in an adjacent matter so as to present a non-equidimensional, non-linear and non-rectangular cross-section.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-2, 4-6, 8-13 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Argyle et al 5,709,910.

Argyle et al teaches a system for applying a modifying composition to a substrate. Argyle et al teaches the system includes a processing chamber which is configured to accept a treatment mixture to a substrate as it moves there through and the pressure chamber is configured to initiate a pressure drop in the treatment mixture (see column 8 lines 3-4). Argyle et al teaches the entry seal comprises a plurality of baffles, each of the baffles having an aperture and the recited aperture is capable of accepting a substrate that substantially matches or is slightly larger than the substrate. Argyle et al teaches at column 6 lines 26-31 and column 7 lines 44-59 the passageway

with baffles therein may differ in cross-sectional configurations—e.g. square, rectangular, elliptical and the like which infers to one skilled that the passageway along with the aperture of the baffles arranged therein can have a variety of configurations. Therefore, it would have been obvious to optimize the shape of the aperture arranged within the Argyle et al baffle such that it is within the scope of the claim dependent on end use requirements of the apparatus and especially given the above cited inference from Argyle's teaching that the passageway along with the aperture of the baffles arranged therein can a variety of configurations. In addition it is noted that it would have been an obvious matter of design choice to provide the aperture of the Argyle et al baffle with a shape within the scope of the claim since such a modification would have been involved a mere change in the shape of a component. See *In re Dailey*, 149 USPQ 47. Thus, claim 1 is obvious over Argyle et al. With respect to claims 2, 4-6 and 17-18, Argyle et al shows the processing chamber includes a first region, second region and a constricted medial region between first and second region which is configured to initiate a pressure drop in the treatment mixture (see column 8, lines 3-41). Further, the aperture of the Argyle et al baffles of the entry and exit seals as modified is capable of accepting a substrate that essentially matches or is slightly larger than the substrate. Further, it would have been obvious to optimize the shape of the aperture arranged within the Argyle et al baffles such that it has a cross-sectional shape to pass a substrate or substrates which in combination provide a cross-section which within the scope of the claims 4-5 and 17-18 dependent on end use requirements of the apparatus and especially given the above cited inference from Argyle's teaching that the

passageway along with the aperture of the baffles arranged therein can a variety of configurations. In addition it is noted that it would have been an obvious matter of design choice to provide the aperture of the Argyle et al baffle with a shape within the scope of the claim since such a modification would have been involved a mere change in the shape of a component. See *In re Dailey*, 149 USPQ 47. With respect to claims 8-11, Argyle et al has a plurality of chambers on either side of the processing chamber which seal and supply an inert fluid at a pressure high enough to prevent leakage of the treatment material from the processing chambers and those fluid filled chambers reads on sealing chambers (entry and exit seal) and expansion chamber, a chamber into which pressurized gas expands, and these chambers are arranged in a manner within scope of claim 8. Further, Argyle et al entry seal and exit seals are fluid filled and are capable of exerting a pressure slightly greater than the pressure in the expansion chamber via pressure flow valve in the treating system. With respect to claims 12 and 13, Argyle et al teaches pressure and temperature levels in the processing chamber are controlled via the combination of heating means 70, the heating means controls pressure and temperature of the material in material source 66, and means to control flow of material from material source 66 to the processing chamber (valve 78 and pump 79).

Claims 1-2, 4-6, 8-13 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Argyle et al in view of Boerger et al.

Argyle et al teaches a system for applying a modifying composition to a substrate. Argyle et al teaches a system includes a processing chamber which is

configured to accept a treatment mixture to a substrate as it move there through and the pressure chamber is configured to initiate a pressure drop in the treatment mixture (see column 8, lines 3-41). Argyle et al teaches the entry seal comprises a plurality of baffles, each of the baffles having an aperture and the recited aperture is capable of accepting a substrate that substantially matches or is slightly larger than the substrate. Argyle et al teaches at column 6, lines 26-31 and column 7, lines 44-59, the passageway with baffles therein can have different cross-sectional configurations—e.g. square, rectangular, elliptical and the like which infers to one skilled that the passageway along with the aperture baffles arranged therein can have a variety of configurations. Therefore, it would have been obvious to optimize the shape of the aperture arranged within the Argyle et al baffle such that it is within the scope of the claim dependent on end use requirements of the apparatus and especially given the above cited inference from Argyle's teaching that the passageway along with the aperture baffles arranged therein can have a variety of configurations and given Boerger teaching of shaping the aperture of the baffle of the entry and exit seal dependent on the shape of the substrate passing thru the aperture of the entry and exit seals (see Fig. 3 of Boerger et al which shows a circular aperture for the baffle of the entry and exit seal of a substrate having a circular cross-section and Fig. 1 of Boerger et al which shows a rectangular aperture for the baffle of the entry and exit seal for a substrate having a rectangular cross-section). Thus claim 1 is obvious over the combination of Argyle et al and Boerger et al. With respect to claim 2, 4-6 and 17-18, Argyle et al shows the processing chamber includes a first region, second region and a constricted medial

region between first and second region which is configured to initiate a pressure drop in the treatment mixture (see column 8, lines 3-41). Note the aperture of the Argyle et al baffles of the entry and exit seals as modified is capable of accepting a substrate that essentially matches or is slightly larger than the substrate. Further, it would have been obvious to optimize the shape of the aperture arranged within the Argyle et al baffles such that it has a cross-sectional shape to pass a substrate or substrates which in combination provides a cross-section which is within the scope of the claims 4-5 and 17-18 dependent on end use requirements of the apparatus and especially given the above cited inference from Argyle's teaching that the passageway along with the aperture of the baffles arranged therein can a variety of configurations and given Boerger teaching of shaping the aperture of the baffle of the entry and exit seal dependent on the shape of the substrate or obviously an arrangement of substrate or substrates passing thru the aperture of the baffle of the entry and exit seal (see Fig. 3 of Boerger et al which shows a circular aperture for the baffle of the entry and exit seal for a substrate having a circular cross-section and Fig. 1 of Boerger et al which shows a rectangular aperture for the baffle of the entry and exit seal of a substrate having a rectangular cross-section). With respect to claims 8-11, Argyle et al has a plurality of chambers on either side of the processing chamber which seal and supply an inert gas at a pressure high enough to prevent leakage of the treatment material from the processing chambers and those gas filled chambers reads on sealing chambers (entry and exit seal) and expansion chamber, a chamber into which pressurized gas expands, and these chambers are arranged in a manner within scope of claim 8. Further, Argyle

et al entry seal and exit seals are fluid filled and are capable of exerting a pressure slightly greater than the pressure in the expansion chamber via pressure flow valve in the treating system. With respect to claims 12 and 13, Argyle et al teaches pressure and temperature levels in the processing chamber are obviously controlled via the combination of heating means 70, the heating means controls pressure and temperature of the material in material source 66, and means to control flow of material from material source 66 to the processing chamber (valve 78 and pump 79).

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Argyle et al in view of Godley 2,545,576.

Argyle et al is applied for the reasons noted above, Argyle fails to teach the apparatus is further comprised of a substrate feed controller. However, it would have been obvious to modify the Argyle et al apparatus to provide a substrate feed controller such as taught by Godley to control speed at which substrate is passed through the system for the taught advantage increase uniformity of deposition of material onto the traveling substrate.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Argyle et al in view of Boerger et al and Godley 2,545,576.

Argyle et al and Boerger et al are applied for the reasons noted above, Argyle fails to teach the apparatus is further comprised of a substrate feed controller. However, it would have been obvious to modify the Argyle et al apparatus to provide a substrate feed controller such as taught by Godley to control speed at which substrate

is passed through the system for the taught advantage increase uniformity of deposition of material onto the traveling substrate.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Argyle et al in view of Beck.

Argyle et al are applied for the reasons noted above but fails to teach at least one baffle of each of the entry seal and exit seal is adjustable to at least one of a different size and a different shape for accepting different elongate substrates. However, it would have been obvious to modify the Argyle et al apparatus by substituting its gas barriers or at the at least one baffle of each of the entry seal and exit seal which prevent leakage of the contents of the processing chamber with an adjustable gas barrier such as taught by Beck for the obvious advantage of enabling one to treat a variety of sizes of a substrate of a given cross-section in his process without frictional engaging the substrate.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Argyle et al in view of Boerger et al and Beck.

Argyle et al and Boerger et al are applied for the reasons noted above. Argyle et al fails to teach at least one baffle of each of the entry seal and exit seal is adjustable to at least one of a different size and a different shape for accepting different elongate substrates. However, it would have been obvious to modify the Argyle et al apparatus by substituting its gas barriers or at the at least one baffle of each of the entry seal and exit seal which prevent leakage of the contents of the processing chamber with an adjustable gas barrier such as taught by Beck for the obvious advantage of enabling

one to treat a variety of sizes of a substrate of a given cross-section in his process without frictional engaging the substrate.

Applicant's arguments with respect to claims 1, 2, 4-6, 8-15 and 17-18 have been considered but are moot in view of the new ground(s) of rejection.

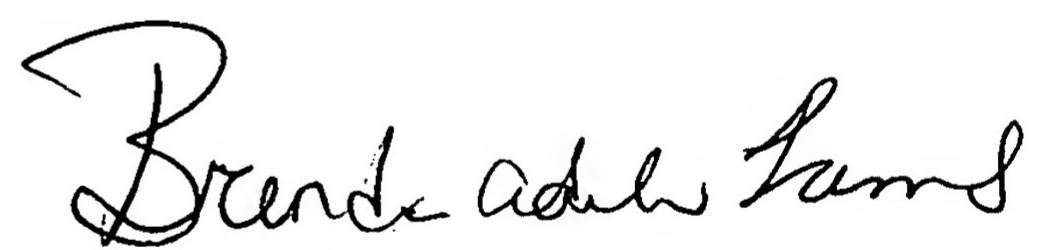
Applicant's argument that the above cited references taken alone or in combination fail to teach the entry seal, in communication with the processing chamber, comprising at least one baffle having an aperture of non-linear and non-rectangular shape and the recited aperture is capable of accepting a substrate that substantially matches or is slightly larger than the substrate is found to be non-persuasive. As discussed above, Argyle et al teaches at column 6 lines 26-31 and column 7 lines 44-59 the passageway with baffles therein may differ in cross-sectional configurations—e.g. square, rectangular, elliptical and the like which infers to one skilled that the passageway along with the aperture of the baffles arranged therein can have a variety of configurations. Therefore, it would have been obvious to optimize the shape of the aperture arranged within the Argyle et al baffle such that it is within the scope of the claim dependent on end use requirements of the apparatus and especially given the above cited inference from Argyle's teaching that the passageway along with the aperture of the baffles arranged therein can a variety of configurations. In addition it is noted that it would have been an obvious matter of design choice to provide the aperture of the Argyle et al baffle with a shape within the scope of the claim since such a modification would have been involved a mere change in the shape of a component. See *In re Dailey*, 149 USPQ 47. Alternatively, it would have been obvious to optimize

Art Unit: 1734

the shape of the aperture arranged within the Argyle et al baffle such that it is within the scope of the claim dependent on end use requirements of the apparatus and especially given the above cited inference from Argyle's teaching that the passageway along with the aperture baffles arranged therein can a variety of configurations and given Boerger teaching of shaping the aperture of the baffle of the entry and exit seal dependent on the shape of the substrate passing thru the aperture of the entry and exit seals (see Fig. 3 of Boerger et al which shows a circular aperture for the baffle of the entry and exit seal of a substrate having a circular cross-section and Fig. 1 of Boerger et al which shows a rectangular aperture for the baffle of the entry and exit seal for a substrate having a rectangular cross-section).

Any inquiry concerning this communication should be directed to Brenda A. Lamb at telephone number (571) 272-1231. The examiner can normally be reached on Monday and Wednesday thru Friday with alternate Tuesdays off.

B.A. Lamb/dh
June 29, 2005


BRENDA A. LAMB
PRIMARY EXAMINER